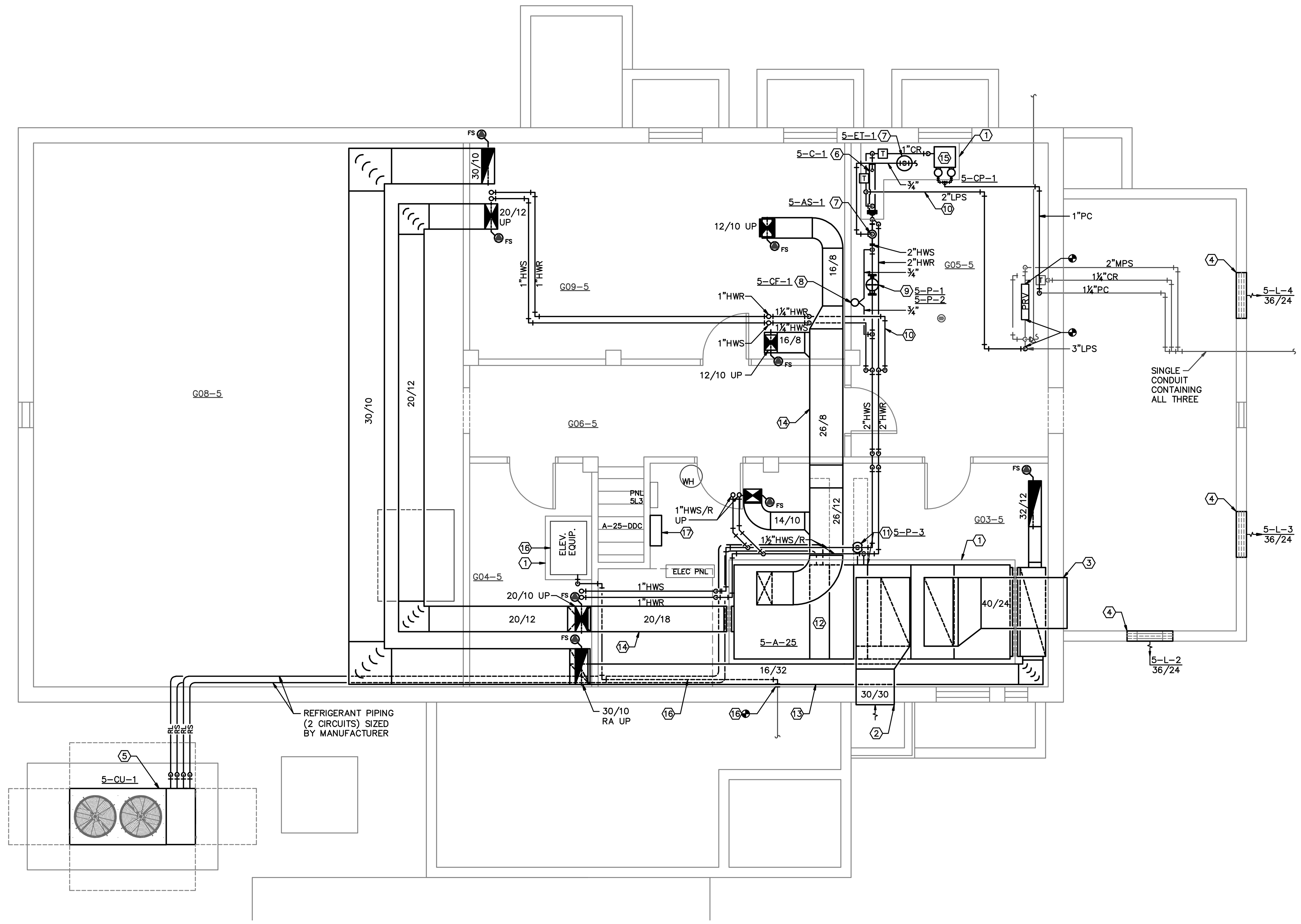
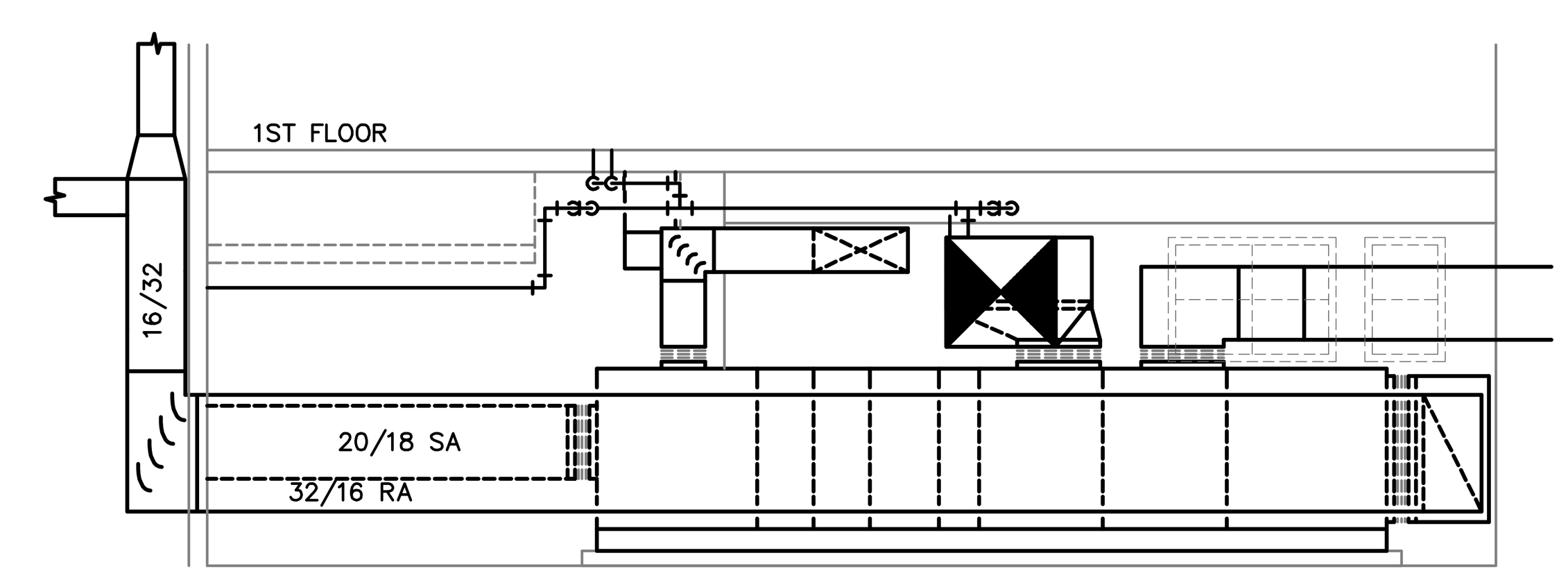


BASEMENT MECHANICAL NEW WORK PLAN

SCALE: 1/4" = 1'-0"



AIR HANDLING UNIT 5-A-25 ELEVATION

SCALE: 1/4" = 1'-0"

GENERAL NOTES

1. NOT ALL DUCTWORK, PIPING, AND ACCESSORIES ARE NECESSARILY SHOWN ON THIS DRAWING, BUT WHAT WAS DEEMED NECESSARY TO SHOW INTENT OF WORK INVOLVED IN THIS PROJECT. REFER TO ALL OTHER PLANS, SECTIONS, DETAILS, SCHEDULES AND SPECIFICATIONS FOR COMPLETE SYSTEM REQUIREMENTS.
2. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO START OF ANY WORK, AND SHALL NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCY BETWEEN THE DRAWINGS AND THE ACTUAL FIELD CONDITIONS.
3. COORDINATE ALL PENETRATIONS OF FLOOR, ROOF, WALLS, ETC. WITH GENERAL CONTRACTOR. ALL PENETRATIONS THROUGH FIRE/SMOKE RATED CONSTRUCTION SHALL BE SEALED WITH A FIRE RATED CAULK EQUAL TO OR EXCEEDING THE CONSTRUCTION FIRE RATING.
4. ALL MATERIALS IN THE RETURN AIR PLENUM SHALL HAVE A MAXIMUM FLAME SPREAD RATING OF 25 AND A MAXIMUM SMOKE DEVELOPED RATING OF 50 IN ACCORDANCE WITH SECTION 602.2.1 OF THE 2006 EDITION OF THE INTERNATIONAL MECHANICAL CODE.
5. FLEXIBLE AIR DUCTS SHALL CONFORM TO UL181 IN ACCORDANCE WITH SECTION 603.6 OF THE 2006 EDITION OF THE INTERNATIONAL MECHANICAL CODE. LENGTH OF FLEX DUCT SHALL NOT EXCEED 5 FT..
6. ALL MECHANICAL EQUIPMENT SHALL BE LABELED AS TO THE AREA(S) SERVED IN ACCORDANCE WITH SECTION 304.11 OF THE 2006 EDITION OF THE INTERNATIONAL MECHANICAL CODE.
7. PROVIDE ACCESS DOORS OR OTHER MEANS OF APPROVED ACCESS TO ALL FIRE DAMPERS AND FIRE/SMOKE DAMPERS. ACCESS DOORS SHALL BE LABELED ON THE ACCESS DOOR AND ON THE CEILING BELOW.
8. PROVIDE AND INSTALL BALANCING DAMPER AT EACH BRANCH TAKE–OFF OF SUPPLY AND EXHAUST AIR SYSTEMS. PROVIDE AND INSTALL BALANCING DAMPER AT EACH BRANCH TAKE–OFF OF RETURN SYSTEMS WHERE INDICATED.
9. MOUNT SPACE TEMPERATURE SENSORS, THERMOSTATS, OCCUPANCY SENSORS, AND REMOTE CONTROL DEVICES WITH CENTERLINE AT 46" AFF UNLESS OTHER WISE INDICATED.
10. REFRIGERANT PIPING SHALL BE SIZED AND INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. SOFT COPPER REFRIGERANT PIPING SHALL BE PROTECTED FROM POTENTIAL DAMAGE.
11. COORDINATE WITH ELECTRICAL CONTRACTOR TO PROVIDE 120V OUTLET WITHIN 25 FT. OF ALL EXTERIOR MECHANICAL EQUIPMENT.
12. ALL FRESH AIR INTAKES AND EXHAUST OPENINGS SHALL HAVE 1/4" MESH BIRD SCREENS.
13. PROVIDE BALANCING REPORT IN ACCORDANCE WITH THE 2006 EDITION OF THE INTERNATIONAL MECHANICAL CODE. SUBMIT TO THE ARCHITECT FOR FINAL APPROVAL. PROVIDE BALANCING REPORT TO INSPECTOR AT TIME OF HEATING FINAL INSPECTION.
14. DUCTWORK SHALL BE SEALED IN ACCORDANCE WITH THE SPECIFICATIONS AND THE 2006 EDITION OF THE INTERNATIONAL ENERGY CONSERVATION CODE, SECTION 503.2.7.
15. PROVIDE AND INSTALL MANUAL AIR VENTS AT ALL HIGH POINTS AND DRAIN VALVES AT ALL LOW POINTS IN HYDRONIC PIPING.
16. ALL HEATING WATER SUPPLY AND RETURN BRANCH PIPING TO TERMINAL UNITS SHALL BE 3/4" UNLESS NOTED OTHERWISE. ALL BRANCH TAKE–OFFS SHALL BE OFF THE BOTTOM OF THE MAIN.
17. MANY AREAS OF CONSTRUCTION ARE VERY CONGESTED, INSTALLATION OF MATERIALS AND EQUIPMENT SHALL BE COORDINATED WITH ALL TRADES TO ENSURE THAT THERE IS ADEQUATE ROOM FOR ALL MATERIALS AND EQUIPMENT TO BE INSTALLED UNDER THIS CONTRACT. INSTALLATION OF MATERIALS AND EQUIPMENT WHICH DOES NOT ALLOW FOR INSTALLATION OF REMAINING MATERIALS AND EQUIPMENT WILL BE REMOVED AND RELOCATED AT NO COST TO THE OWNER. IN GENERAL, PREFERENCE SHALL BE GIVEN TO THE INSTALLATION OF LARGER COMPONENTS FIRST (i.e. VAV BOXES, DUCTWORK, CABLE TRAY, HYDRONIC PIPING, SPRINKLER PIPING AND CONDUIT RESPECTIVELY.)

KEYNOTES

1. NEW CONCRETE HOUSEKEEPING PAD FOR AIR HANDLING UNIT, CONVERTER, ELEVATOR HYDRAULIC UNIT AND CONDENSATE PUMP, SEE "CONCRETE HOUSEKEEPING PAD DETAIL" ON SHEET H8.
2. SAW CUT NEW 30"X30" OPENING IN EXISTING CONCRETE WALL TO NEW FRESH AIR SHAFT. CORE DRILL CORNERS OF OPENING TO PREVENT OVER CUTTING. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR SHAFT CONSTRUCTION.
3. SAW CUT NEW 40"X24" OPENING IN EXISTING CONCRETE WALL FOR NEW RELIEF AIR. CORE DRILL CORNERS OF OPENING TO PREVENT OVER CUTTING.
4. SAW CUT NEW 36"X24" OPENING IN EXISTING CONCRETE WALL FOR NEW EXHAUST AIR LOUVER. MATCH ELEVATION OF EXISTING GRILLES. CORE DRILL CORNERS OF OPENING TO PREVENT OVER CUTTING.
5. MOUNT NEW CONDENSING UNIT ON EXISTING CONCRETE HOUSEKEEPING PAD.
6. NEW CONVERTER, SEE "STEAM TO HOT WATER CONVERTER PIPING DIAGRAM" ON SHEET H9.
7. NEW AIR SEPARATOR AND EXPANSION TANK, SEE "AIR CONTROL AND EXPANSION TANK ASSEMBLY (AIR SEPARATOR)" ON SHEET H9.
8. NEW CHEMICAL FEEDER, SEE "CHEMICAL FEEDER DETAIL" ON SHEET H8.
9. NEW IN–LINE PUMP, SEE "IN–LINE PUMP PIPING DETAIL" ON SHEET H8.
10. NEW HOT WATER AND STEAM PIPING, SEE "HEATING HOT WATER PIPING SUPPORT DETAIL" ON SHEET H8.
11. NEW PUMPED HEATING COIL, SEE "PRE–HEAT COIL PIPING DETAIL" ON SHEET H9.
12. NEW DIRECT EXPANSION COOLING COIL, SEE "DIRECT EXPANSION COOLING COIL PIPING DIAGRAM" ON SHEET H8.
13. ROUTE RETURN AIR DUCT ABOVE FLOOR BESIDE AIR HANDLING UNIT.
14. ROUTE NEW SUPPLY DUCT TO EXISTING SHAFTS.
15. NEW CONDENSATE PUMP, SEE "CONDENSATE PUMP PIPING DIAGRAM" ON SHEET 8.
16. RELOCATE EXISTING ELEVATOR HYDRAULIC UNIT TO LOCATION SHOWN. INSTALL NEW 2" HYDRAULIC LINES FROM HYDRAULIC UNIT TO EXISTING HYDRAULIC LINES ON SOUTH WALL. PROVIDE AND INSTALL NEW HYDRAULIC HOSES TO REPLACE EXISTING ON ELEVATOR AND HYDRAULIC UNIT.
17. NEW DDC TEMPERATURE CONTROL PANEL WITH JOHNSON CONTROLS CONTROLLER.

CONTRACTOR IS RESPONSIBLE FOR VERIFYING THAT NEW AHU COMPONENTS WILL FIT DOWN EXISTING STAIRWELL PRIOR TO BIDDING. IF IT IS DETERMINED BY THE CONTRACTOR THAT OTHER ARRANGEMENTS SHOULD BE MADE TO BRING NEW AHU IN BUILDING, DISCUSSIONS SHOULD BE HAD PRIOR TO BIDDING AND COST SHOULD BE INCLUDED IN THE BID.

CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY HEAT TO OFFICE SPACE DURING CONSTRUCTION. IT IS THOUGHT THAT THE NEW VAV BOXES WITH OPERATIONAL HEATING COILS COULD BE USED BY INSTALLING TEMPORARY SUPPLY FANS TO VERTICAL SHAFTS IN THE BASEMENT.

Revisions	Date
35% REVIEW	04/30/2009
75% REVIEW	05/21/2009
100% FINAL	06/05/2009

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Drawing Title: BASEMENT MECHANICAL NEW WORK PLAN

Approved: Medical Center Director

Approved: Assistant Administrator, Engineering Department

Project Title: REPLACE AIR HANDLING UNIT BUILDING 5

Location: 2121 NORTH AVENUE GRAND JUNCTION, CO 81501

Date: April 15, 2009 | Checked: TBS | Drawn: DJS

Project Number: 575-10-105

Building Number: BUILDING NO. 5

Drawing Number: H5

OFFICE OF FACILITIES MANAGEMENT

Department of Veterans Affairs